

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 3 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A method of modeling data comprising:

generating at least one knowledge entity wherein each generated knowledge entity is generated from at least one data source and represents the at least one data source from which the generated knowledge entity was generated;

storing the at least one knowledge entity in a knowledge base; and

providing a set of knowledge services that synchronize each generated knowledge entity with the at least one data source from which the knowledge entity was generated.

2. (Original) The method of claim 1 wherein generating the at least one knowledge entity comprises arranging a hierarchical arrangement of at least one attribute-value pair associated with the at least one data source using an extensible markup language.

3. (Original) The method of claim 1 wherein one of the set of knowledge services comprises a service that updates the at least one knowledge entity in response to receiving an event representing a change in the at least one data source from which the at least one knowledge entity was generated.

4. (Original) The method of claim 1 wherein one of the set of knowledge services comprises a service that updates the at least one data sources from which the at least one knowledge entity was generated in response to receiving an event representing a change in the at least one knowledge entity.

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 4 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

5. (Original) The method of claim 1 wherein the set of knowledge services further comprises:

a service that provides a set of data retrieval services that access the at least one data source from which the at least one knowledge entity was generated; and

a service that provides a set of data conversion services that translate data content, the data content stored in the at least one data source from which the at least one knowledge entity was generated, to an alternative format.

6. (Original) The method of claim 5 wherein one of the set of data retrieval services comprises accessing at least one attribute-value pair associated with the at least one data source from which the at least one knowledge entity was generated in response to an access request, the access request identifying the at least one knowledge entity.

7. (Original) The method of claim 6 wherein accessing the at least one attribute-value pair comprises:

instantiating a business object using the access request and a pre-defined data connectivity connection, the pre-defined data connectivity connection previously defined for the at least one data source from which the at least one knowledge entity was generated; and

executing the pre-defined connectivity connection associated with the business object.

8. (Original) The method of claim 5 wherein one of the set of data retrieval services comprises accessing administrative information stored in the at least one knowledge entity in response to a list retrieval request, the list retrieval request identifying the at least one knowledge entity.

9. (Original) The method of claim 5 wherein one of the set of conversion services comprises generating a formatted data set from the at least one knowledge entity using a data

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 5 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

conversion algorithm and a conversion request, the conversion request identifying the at least one knowledge entity and a data format.

10. (Original) The method of claim 5 wherein one of the set of conversion services comprises:

receiving a pattern conversion request, the pattern conversion request identifying the at least one knowledge entity and a data pattern;

comparing at least one attribute-value pair in the at least one knowledge entity to the data pattern; and

granting access to the at least one attribute-value pair based on the comparison.

11. (Original) An article comprising a machine-readable medium storing machine-readable instructions that, when applied to the machine, cause the machine to:

generate at least one knowledge entity wherein each generated knowledge entity is generated from at least one data source and represents the at least one data source from which the generated knowledge entity was generated;

store the at least one knowledge entity in a knowledge base; and

provide a set of knowledge services that synchronize each generated knowledge entity with the at least one data source from which the knowledge entity was generated.

12. (Original) The article of claim 11 including instructions that, when applied to the machine, cause the machine to arrange a hierarchical arrangement of at least one attribute-value pair associated with the at least one data source using an extensible markup language.

13. (Original) The article of claim 11 including instructions that, when applied to the machine, cause the machine to update the at least one knowledge entity in response to receiving an event representing a change in the at least one data source from which the at least one knowledge entity was generated.

Applicant : Wu et al
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 6 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

14. (Original) The article of claim 11 including instructions that, when applied to the machine, cause the machine to update the at least one data sources from which the at least one knowledge entity was generated in response to receiving an event representing a change in the at least one knowledge entity.

15. (Original) The article of claim 11 including instructions that, when applied to the machine, cause the machine to:

provide a set of data retrieval services that access the at least one data source from which the at least one knowledge entity was generated; and

provide a set of data conversion services that translate data content, the data content stored in the at least one data source from which the at least one knowledge entity was generated, to an alternative format.

16. (Original) The article of claim 15 including instructions that, when applied to the machine, cause the machine to access at least one attribute-value pair associated with the at least one data source from which the at least one knowledge entity was generated in response to an access request, the access request identifying the at least one knowledge entity.

17. (Original) The article of claim 16 including instructions that, when applied to the machine, cause the machine to:

stantiate a business object using the access request and a pre-defined data connectivity connection, the pre-defined data connectivity connection previously defined for the at least one data source from which the at least one knowledge entity was generated; and

execute the pre-defined connectivity connection associated with the business object.

18. (Original) The article of claim 15 including instructions that, when applied to the machine, cause the machine to access administrative information stored in the at least one

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 7 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

knowledge entity in response to a list retrieval request, the list retrieval request identifying the at least one knowledge entity.

19. (Original) The article of claim 15 including instructions that, when applied to the machine, cause the machine to generate a formatted data set from the at least one knowledge entity using a data conversion algorithm and a conversion request, the conversion request identifying the at least one knowledge entity and a data format.

20. (Original) The article of claim 15 including instructions that, when applied to the machine, cause the machine to:

compare at least one attribute-value pair in the at least one knowledge entity to a data pattern in response to a pattern conversion request, the pattern conversion request identifying the at least one knowledge entity and the data pattern; and
grant access to the at least one attribute-value pair based on the comparison.

21. (Original) A system comprising:

a computer network;
a directory coupled to the network, the directory storing a data repository;
a service delivery device coupled to the network, the service delivery device including a processor and memory storing instructions that, in response to receiving a request for access to a service, cause the processor to:

generate at least one knowledge entity wherein each generated knowledge entity is generated from at least one data source and represents the at least one data source from which the generated knowledge entity was generated;

store the at least one knowledge entity in a knowledge base; and
provide a set of knowledge services that synchronize each generated knowledge entity with the at least one data source from which the knowledge entity was generated.

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 8 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

22. (Original) The system of claim 21 wherein the memory stores instructions that, in response to receiving the request, cause the processor to arrange a hierarchical arrangement of at least one attribute-value pair associated with the at least one data source using an extensible markup language.

23. (Original) The system of claim 21 wherein the memory stores instructions that, in response to receiving the request, cause the processor to update the at least one knowledge entity in response to receiving an event representing a change in the at least one data source from which the at least one knowledge entity was generated.

24. (Original) The system of claim 21 wherein the memory stores instructions that, in response to receiving the request, cause the processor to update the at least one data sources from which the at least one knowledge entity was generated in response to receiving an event representing a change in the at least one knowledge entity.

25. (Original) The system of claim 21 wherein the memory stores instructions that, in response to receiving the request, cause the processor to:

provide a set of data retrieval services that access the at least one data source from which the at least one knowledge entity was generated; and

provide a set of data conversion services that translate data content, the data content stored in the at least one data source from which the at least one knowledge entity was generated, to an alternative format.

26. (Original) The system of claim 25 wherein the memory stores instructions that, in response to receiving the request, cause the processor to access at least one attribute-value pair associated with the at least one data source from which the at least one knowledge entity was generated in response to an access request, the access request identifying the at least one knowledge entity.

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 9 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

27. (Original) The system of claim 26 wherein the memory stores instructions that, in response to receiving the request, cause the processor to:

instantiate a business object using the access request and a pre-defined data connectivity connection, the pre-defined data connectivity connection previously defined for the at least one data source from which the at least one knowledge entity was generated; and
execute the pre-defined connectivity connection associated with the business object.

28. (Original) The system of claim 25 wherein the memory stores instructions that, in response to receiving the request, cause the processor to access administrative information stored in the at least one knowledge entity in response to a list retrieval request, the list retrieval request identifying the at least one knowledge entity.

29. (Original) The system of claim 25 wherein the memory stores instructions that, in response to receiving the request, cause the processor to generate a formatted data set from the at least one knowledge entity using a data conversion algorithm and a conversion request, the conversion request identifying the at least one knowledge entity and a data format.

30. (Original) The system of claim 25 wherein the memory stores instructions that, in response to receiving the request, cause the processor to:

compare at least one attribute-value pair in the at least one knowledge entity to a data pattern in response to a pattern conversion request, the pattern conversion request identifying the at least one knowledge entity and the data pattern; and
grant access to the at least one attribute-value pair based on the comparison.

Applicant : Wu et al.
Serial No. : 10/622,265
Filed : July 17, 2003
Page : 10 of 13

Attorney's Docket No.: 13906-089001/2003P00388 US

31. (New) The method of claim 1, wherein the knowledge entities store meta-definitions that reference one or more objects in the at least one data source from which the knowledge entity was generated.

32. (New) The method of claim 31, wherein one or more of the objects referenced by one of the stored meta-definitions are accessed in response to a request.